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ABSTRACT

The purpose of the study reported in this document was to examine the oral language and some of the influences on oral language of students from five to nine years old. Six students in each of 13 classes were selected randomly and were taped in three different situations: a monologue by the student when alone in the room, a dialogue with another student selected by the first student, and a dialogue with the class teacher and two students of the original six. Approach to the data obtained was nonquantitative. Instead, a limited number of tape units were analyzed in depth to uncover the factors affecting language use. In addition, background information on individual students and a comparison of students' performances were analyzed. As a result, it can be suggested that students with a particular background may be subject to a particular language difficulty. This document reports and discusses the variety of findings and contains samples of materials used in the study. (JM)

Five to Nine:

Aspects of Function and Structure in the Spoken Language of Elementary School Children

Final Report

submitted to the

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York University

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Preface

The research reported here was undertaken from January 21, 1972 to July 21, 1972 as a joint project between York University and the English Department of the Board of Education for the Borough of North York. The financial support of the Ministry of Education, Ontario, through its Grants-in-Aid of Educational Research and Development Program, made the following research possible, and is hereby gratefully acknowledged.

We wish to thank the principals, teachers and students who co-operated with the researchers and gave us the opportunity to work with them. The English Department of the Board of Education for the Borough of North York and particularly Mrs. Roberta Charlesworth, the co-ordinator of English, helped to initiate the project and brought the school personnel and the research staff together. The present language study follows earlier language arts projects and studies carried out by the English Department. It is a direct continuation of the exploratory work done during the summer of 1970 ("Approaches to the Study of Students' Language") based on material gathered during the preceding three years under the direction of the English Department. We thank Mr. Anthony Tilly, the liaison between the English Department and the research staff, who was helpful in many matters from the earliest hours of the project and who permitted us to use his summary of scale and category grammar first prepared for "Approaches to the Study of Students' Language". Mr. Peter Nightingale, Program Consultant in the Ministry of Education had discussions with the research staff and his support and interest is acknowledged. We thank Professor Michael Gregory for permission to use excerpts from his unpublished notes "Describing English". The trans-

cribers, Marie Fisher, Judy Jattan, and Roger Lacey, contributed to the accuracy of our materials and their diligence at a difficult task is gratefully acknowledged.

James Quixley, the librarian of Leslie Frost Library, Glendon College, York University and his staff have continually assisted the research staff and we thank them accordingly. We are grateful to Mrs. Jean Rees who untangled administrative snags and expedited important matters throughout the six months of the project. We also thank Mrs. Rees for her care and patience in preparing the final typescript.

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I Introduction

Purposes

The purpose of this study was to examine the oral language and some of the influences on oral language of students from five to nine years old in North York schools. This age span is an important one for the development of language and coincides with the first years of formal education. Related to the use of language are the interpersonal relationships with other students and with the teacher, the student's language background, and other factors in his life outside school. Concerning language itself several aspects were analysed. These include expressions of cause, condition, supposition, and hypothesis (collectively called tentativity), and structural complexity. The functions of language as it is used in actual situations was explored. These functions include asking and answering questions, showing awareness of the other participants in the conversation, and adding new information to the conversation.

The study was not to be descriptive alone. Another objective was to involve the teachers in channelling the research so it could be useful to them. When it was possible, therefore, the investigators took time to discuss the research approach with the teachers and principals. Before the detailed analysis of the materials was begun, each teacher was approached with the provisional method of analysis so that he had an opportunity to question the investigators on what was being done and to suggest additional points for analysis. The co-operation of the teachers has helped this project towards its research-oriented goals and helped, we believe, the teachers to gain an increased awareness of some aspects of their students' language. The investigators would recommend similar co-operation in future research projects.

Basic Method of Gathering Data

Oral language was the focus of the investigation. In the early stages of the project teachers were supplied with tape-recorders and experimented in the classroom with different taping situations. This was done to accustom the teachers to the effect a tape-recorder has on the language of their students. Some students were eager to speak out; others were shy. Some students wanted to tell a story, some to act out a drama, some to pretend they were somebody else. The presence of the tape-recorder also gave time for some students to become less self-conscious about a machine which was strange to them.

Within the thirteen classes which were involved in the project, students were selected at random from the class list. Six students were selected initially and were taped in three different "situations" (this is a technical use of the word "situation" and refers to the personal and physical characteristics of the circumstances in which language occurs): (1) a monologue by the student when alone in a room, (2) a dialogue with another student he himself selected from his class, and (3) a dialogue with the class teacher and two students of the original six selected (referred to as a teacher-dialogue).

Excluding those units of tape which were affected by technical difficulties or excessive background noise, 168 monologues, dialogues and teacher-dialogues from kindergarten through grade 4 were transcribed. In all, about 160 students were recorded. To cut down the sample, some units in grades for which an unusually large amount of material was available were not considered. These eliminations left 106 students distributed in the following grade levels: K, 1, 1-2, 2, 3, 2-6, 4.

Basic Method of Analysis

The approach to the data was primarily non-quantitative. Since an assumption of randomness was clearly out of order (with respect, for example, to the schools and classes chosen, and with respect to the partners selected for the dialogues and teacher-dialogues) a sample would not necessarily represent the base from which it was drawn. Instead, a limited number of tape units was analysed in depth to uncover the factors affecting language use. This method of examining a few selected cases is also used in Chomsky (1972) and Strickland (1962).

The language gathered in the various circumstances is not a perfect sample of the speech of the students. Each pre-arranged situation must necessarily affect the language used. There is a microphone, tape-recorder, and empty room, and other strange, from a student's point of view, activity surrounding the conversations. The language that is recorded is then not identical in all ways to the speech used by the same students outside the special setting of the taping situation. However, by comparing how different students use language in the same situations and how the same students use language in different situations, knowledge about how they are able to use language can be gained.

Variables and Method of Investigation

As our intention was not to gather statistical evidence to test given hypotheses, the statements of the tendencies of variables to be associated should not be interpreted as arising from a formal procedure of hypothesis formulation, testing, and statistical validation. Rather, our aim has been to examine a selection of language (largely random) from our data and

to discover those aspects of language and situation which seem to be associated and to give some explanation of the results.

For the analysis, two sets of conversations each representing all grades and ages and all the situations within each grade level and age were chosen. One set of conversations was selected because there seemed to be unusual uses of language in them. This set consisted of six students who had each been recorded in the three situations. The second set (twenty-two students) was selected at random from those remaining students who had been recorded in all three situations. A third set of fourteen students, some of whom were included in the first two sets, was chosen because of their distinctive use of language and were examined individually as case studies. Their language in the three situations (monologue, dialogue, and teacher-dialogue), the structural and functional aspects of their language, and their personal backgrounds were all examined and compared. Some of these case studies are reported in Appendix B.

The findings are divided into the following sections: the analysis of questions and responses (being part of the functional investigation), the effect of different personal backgrounds on language, the effect of situation on language, and an analysis of the grammatical structures and expressions of tentativity which were used. Aspects of the functional analysis are reported in each section.

II Analysis

Function

The functional analysis of students' language considered two main functions of language: the textual function and the interpersonal function. The theoretical bases of these functions are outlined in Appendix C. The textual function accounts for relationships of coherence, structure and vocabulary within segments of language. Three specific aspects of textual function were examined.

(1) New information: in dialogues and teacher-dialogues a comparison was made between the students to determine which students were adding the most new information to the conversation. This function is closely related to the function of changing the topic of conversation. The language reflects the introduction of new information and changes of topic through changes in the vocabulary, formality of speech, and the voice quality. Ability to change the topic is an indication of security in the situation, leadership, and control of the conversation (and perhaps also control of the other speaker).

(2) Anaphora: anaphora (see Appendix C) or back reference, (for example, using a pronoun instead of repeating a noun), by a speaker referring to his own language is one indicator of coherence that was examined.

(3) Hesitation: hesitation features, such as restarting sentences or words, pauses, "um"'s and "ah"'s serve definite functions in language. Hesitations are not necessarily "bad" aspects of language use. They may be used to retain the attention of the listener while the speaker thinks of something to say, or while he works out how he is going to say something. Hesitations may also be used as signals to the listener that the speaker is not yet finished and that the listener should wait his turn. When examining the amount of hesitation features, it is clear that the total

situation (including who, if anybody, the speaker is talking to), the purpose of his speech, and the level of structural complexity, must be considered before judgements are made. Contrasting with hesitation features is the use of silence. Silence may indicate (as it seemed to in the kindergarten monologues) that the speaker is not familiar with the variety of speech required in a particular situation or that he has nothing to say. Silence, however, may be used intentionally by a speaker to build tension or make another speaker feel uncomfortable. If one speaker is silent he may pressure the other speaker into talking.

The textual functions just outlined involve the direct interrelationships of different segments of language. They are functions within the "text" of language itself. The interpersonal function of language, by contrast, accounts for that aspect of language which relates one person to another. Through language people influence, criticize, distract, and teach one another. The interpersonal function is very broad and is present almost every time language is used. The dialogues and teacher-dialogues were designed to be situations in which interpersonal functions of language would be important and the functions in the two different situations could be compared.

The language of a student could reflect that student's awareness of the other speaker and his grasp of what language was necessary to gain the attention of his partner. If the partner does not hear or follow what was said a speaker could immediately repeat the matter in question. Awareness of the other person is also reflected by a tendency to avoid speaking at the same time, addressing the other speaker indirectly or by his name, and referring back to what the other speaker has said (anaphoric reference to the language of another person). Insisting on being heard despite another speaker's domination of the conversation, and insisting on winning a dispute

are also components of the interpersonal function which were initially investigated. However, the examination of insistence did not yield significant results. The relative volubility of the participants in a conversation was first assessed informally by listening to the tape and following the transcript. For some analyses word-counts were made to check the informal assessments. The volubility of a student was found, of course, to be associated with the number of compound sentences and the amount of new information that he added. However, no definite causal relationship was assumed.

In a few cases students would take on the character of another person, such as a parent or teacher. In these instances it was noted that a role was being played and the interpersonal function was assumed to be that of a student pretending to be someone else and interacting with another student who may also have been playing a role.

Since function underlies all aspects of language and all aspects of our analysis, the results of the investigation of function are included in the reports of the other analyses. Questioning and answering are two important functions in the classroom. A special study was therefore made of the questions and responses used at two grade levels: kindergarten and grade 4, and in the two dialogue situations. The purposes of the questions were examined as well as the structural types of questions that were used. Different intonation patterns used by teachers and students in asking questions were investigated. Responses were linked to their associated questions and compared by grade level and by the situation they were used in.

Background

The type (technically the "variety") of language that a student brings

from his home when he comes to school is central to his performance in any speaking situation. Thus, some of the most important variables to take into account when examining language are those deriving from the student's background. Information on each student was obtained from the school's OSR cards and from information supplied by teachers on the forms in Appendix C. The age and grade of each student were recorded so that comparisons by age and grade could be made. The place of birth of the child and his parents and the languages spoken in the home were further important considerations. The occupations of the parents, the rate of transience of the family, and the number of siblings, older or younger, were also examined. Cases of broken homes were noted. Besides factors deriving from the child's home life, special problems he encountered in school and estimates of his general intelligence and speaking ability were included by the teacher along with any other information the teacher thought would be helpful (see Appendix C).

Once the information was collected, the analysis was directed to what appeared to be the more important factors. The parent's occupation and general intelligence of the child seemed of little overall significance. The three factors most closely considered were the presence of a second language in the home, the ages and number of siblings, and difficulties in the home such as separation or divorce. Attempts were made to relate these factors throughout the three taping situations in order to discover how students with different backgrounds performed differently in different situations. The relationships of background to function and to structural complexity were also considered. The comparisons which proved most revealing were those between students exposed to a second language at home and students who were exposed only to English; between students with older siblings or no siblings who would be frequently in contact with adult

language and students with younger brothers and sisters; and between students from broken homes and students with a stable family structure.

Situation

Each student analysed in this study spoke in three different taping situations: a monologue, dialogue, and teacher-dialogue. These situations were used so the language spoken by a student in one situation could be compared to his language in the other situations. How the language differs in the three situations could then be determined. The structural complexity and functional aspects of a student's speech shift as he moves from one situation to another because he is using language for different purposes. The child's ability to adapt to each situation is an appropriate measure of the effectiveness of his speaking ability. By making explicit various functional and structural differences between language used in the three situations the study can demonstrate that a child speaks several varieties of English according to the situation he is in. Children with different backgrounds react differently in the three situations because they may be more or less able to adapt.

The functional and structural performance of each student was compared across the three situations. What was needed was some idea of the variety of English demanded by each situation and the ability of children of different ages and backgrounds to speak effectively in response to such demands.

Structure

The structural analysis was focused on three aspects of language patterning; namely, tentativity, compound sentences, and subordinate

clauses. These aspects were chosen because they are generally good indicators of the structural complexity of language. Tentativity is a semantic category describing expressions of cause, condition, hypothesis, and supposition (see Appendix C). As a child learns to effectively control language for his purposes the incidence of expressions of tentativity increases. Tentativity is thus an indicator both of the effectiveness and complexity of language (Strickland, 1962; Loban, 1963). An analysis of compound sentences (specifically, additioned clauses in scale and category grammar) served two purposes. First, the manner in which clauses were additioned to independent sentence elements would be a marker of structural complexity. For example, if the grammatical subject were omitted from the second part of a compound sentence (minus element additioning in scale and category grammar) the structure is more complex than had the subject been repeated. Second, compound sentences would give some indication of the amount of language spoken by each student. The use of subordinate clauses (rank-shifted clauses in scale and category grammar) was another indicator of structural complexity (see Appendix C).

Each student in the basic sample of twenty-eight students was examined in each of the taping situations in which he spoke. The numbers of expressions of tentativity, additioned clauses, and rank-shifted clauses were determined for the five minute length which each situation was allowed.

When the number of expressions of tentativity, and the number of additioned and rank-shifted clauses had been determined, an attempt was made to discover relationships between those structural factors. Then the data were examined to uncover any developmental trends in structural complexity. The study also looked for the structural characteristics peculiar to each situation. The students' backgrounds were also taken into consideration in examining structural complexity. Lastly, the

study looked for any correspondence between the use of grammatical structures and indicators of functions such as hesitation, questioning, and responding.

III Findings

Function

It was pointed out in the Introduction that the functional analysis underlies the various investigations of language that were carried out. Consequently, most of the results of the functional analysis are reported with the results of these other studies. An exception is the analysis of questions and answers.

The question-answer pattern is a very important one to study for several reasons. It is a common method of communication in the formal situation of the classroom. There was a tendency for students to initiate this pattern of speech if they considered that speaking into a microphone and tape-recorder required a certain formality. Students, especially in kindergarten, who joked about and did not take the situation seriously rarely used the question-answer pattern.

The question-answer pattern was possibly the immediate solution for a student in the dialogue situation who wanted to make verbal noise and have his partner make verbal noise or who wanted to dominate the conversation. Questions were also used by a student to introduce his idea in an emphatic way; e.g., "you know what? I'm frightened too", or to end a speech in an emphatic way; e.g., "you are frightened aren't you?". Both of these uses were usually rhetorical.

To study the purposes and structural types of questions in the dialogues and teacher-dialogues the occurrence of eight main question types was investigated according to function, and seven types organized according to structure. The functional question types were:

(1) Information seeking: "did you go to the farm yesterday?"
(2) Rhetorical: "what'll we do?"
(3) Social: "how are you?"
(4) Address: "Bonnie?"
(5) Surprise: "what's that over there?" (with marked intonation)

(6) Structural: "you know what?"

(7) Filler: "you know?"

(8) Reinforcement: "did you?"

The structural question types were:

(1) Inverted: "did you see it?"

(2) Interrogative pronoun or adjective: "what did you see?"

(3) Interrogative adverb: "why did you see it?"

(4) You know .... : "you know those boys?"

(5) Elliptical: "did they?"

(6) Uninverted with rising intonation: "you are going out?".

(7) Tag questions: "he is, isn't he?"

Using these functional and structural question patterns the dialoguee and teacher-dialogues of kindergarten and grade 4 were analysed and compared. It seemed that if age made any significent difference in the usage of question patterns this would be revealed in such a comparison. The questions were categorized first according to function and then the questions within each function were divided into types.

It was found that grade 4 students who kept to one topic and changed it very infrequently chiefly used information seeking and structural questions which seemed appropriate to rather formal discussions. The kindergarten students used information seeking and structural questions too, but they used many other functional types as well -- surprise, address, and rhetorical questions. They were inclined to change their topics very rapidly and to be emotionally affected by noises outside the room and by their predicament of having to stay in the room for five minutes. Proportionately then, kindergarten students used fewer information seeking and structural questions than students in grade 4.

At both grade levels, those who used a great deal of tentativity and complex sentence structure used very few information seeking questions. If the two speakers were equally talkative and adept in using the various

functions of language, a discussion took place with one carrying on when the other finished.

In the teacher-dialogues at the kindergarten level the teacher used many more reinforcement questions than grade 4 teachers did in the same situation. It would seem that kindergarten students need more encouragement to speak and reinforcement questions are one way to encourage them.

The structural analysis revealed that grade 4 students used more "what" and "why" information seeking questions in their dialogues than kindergarten students did in their dialogues in which they used more inverted questions. "What" and "why" questions are more difficult to answer than inverted questions; e.g., "did you visit the farm yesterday?" which only requires a "yes" or "no" answer. Grade 4 teachers used more "why" questions than did kindergarten teachers. The use of "why" questions by grade 4 students may reflect the pattern of their teachers in asking questions. Kindergarten teachers used more "what" than "why" questions. "What did you eat?" is easier to answer than "why do you eat?". The "what" questions would appear more appropriate to the younger students.

As with questions, responses were analysed functionally and structurally. The functional types of responses were:

(1) Agree or disagree
(2) Provide information
(3) Ignore the question.

The structural types were:

(1) "Yes" or "no"
(2) One word answer other than "yes" or "no"
(3) A complex structure.

When the response patterns were counted and related to certain information seeking question types, it was discovered that inverted questions in the dialogue usually received a "yes" or "no" answer whereas in the teacher-

dialogue they more often received a "yes" or "no" answer plus some new information. In grade 4 dialogues there was a tendency to answer "what" questions with a one word answer; more so than in the grade 4 teacher-dialogues and in the kindergarten dialogues and teacher-dialogues.

A comparison of the information questions used in the dialogues with those used in the teacher-dialogues revealed that when the teacher was conversing with the students and allowing them to change the topic if they wished, there were very few "why" questions, but a great number of "what" and inverted questions. The "what" questions and inverted questions are easier to answer and are perhaps more appropriate in an informal situation and conversation. The preference for using "what" and inverted questions rather than "why" questions was evident in the dialogues as well as the teacher-dialogues. The students, it seems, knew the interpersonal value of the easier "what" and inverted questions; those questions are not too demanding yet can help keep the students talking, even if only for the sake of the tape-recorder.

Background

The background information which was gathered for each student was sufficient to permit a number of analyses of the effect of background on the use of language in different situations. Three factors seemed to be important: exposure to a second language at home, exposure to adult language at home, and the stability of the household. Occupation of the parents and other indicators of socio-economic status were not studied thoroughly for a number of reasons. Our sample from two schools, and thus from only two neighbourhoods, did not yield a wide variety of levels of socio-economic status. In addition, the data did not contain enough

representation of each occupation to form generalizations about their effect on students' language. However, in the case studies (Appendix B) use is made of those other factors of a student's background when it seemed appropriate.

Exposure to a second language besides English (termed ExSL) seemed to have a definite connection with the volubility of students. Although almost all the students who were studied had learnt English as a native language, some of them had parents and older siblings who spoke another language. In comparing the volubility of the students in the dialogue and the teacher-dialogue situations for this particular part of the investigation word-counts were made. In the dialogues the students take an equal number of turns speaking, while in the teacher-dialogues the teacher speaks about the same number of times as both students combined. Consequently, a word-count is necessary to determine volubility. When working through the data the investigators gained the impression that students who were exposed to a second language at home were more voluble in dialogues than partners who had been exposed to only English at home (ExOE students).

For each grade from kindergarten to grade 3, three dialogues were chosen to test the hypothesis which was formed: students exposed to a second language at home speak more than their partner if the latter has been exposed only to English at home. Grade 4 was not included because a set of three comparisons was not available in the data assembled. For each grade, one dialogue between two ExSL students, one between two students who had been exposed only to English at home, and one between an ExSL student and a partner who had been exposed only to English were selected. A comparison of the dialogues between two ExSL students and

the dialogues between two ExOE students revealed that the ExSL students spoke slightly less than the ExOE students, matched for age and grade. An exception was kindergarten. Comparing the dialogues in which there was one student from each category, it was found that in all grades the ExSL student spoke more than his ExOE partner. To test the finding, further such mixed dialogues (to a total of ten) were analysed. In nine of the ten dialogues the ExSL students were more voluble than their partners, based on a word-count. In one case, where the volubilities of the two students were similar, the ExOE student was a year older than her ExSL partner. See the following table.

Comparative Volubility in Dialogues (number of words spoken)

Grade	Student Exposed Only to English	Student Exposed to a Second Language
K	169	215
	183	288
1	246	326
	350	457
1-2	202*	207
	259	432
2	243	304
	228	300
3	422	296
	296	340

* One year older than partner.

The difference in volubility between ExSL and ExOE students in dialogues with each other disappears in the teacher-dialogues. It has been

suggested that the teacher's regulation of the teacher-dialogue situation, the formality of the teacher-dialogue situation, or the ExSL student's reserve with an adult may have influenced his volubility. It is clear that further work must be done to verify the finding and to determine the causes if possible.

As well as exposure to other languages, the domestic stability of the home was related to the use of language. Divorced or separated parents and frequent moving from one home to another were taken as signs of a disrupted home life. With the exception of one kindergarten child, students from disrupted homes had quite poor language usage both structurally and functionally. Structurally, all of tentativity, sentence element additioning, and rank-shifting were consistently far below the average for the student's age and grade level. Functionally, these students presented very little new information, spoke very little, asked few questions, and often responded to the questions of others with only a "yes" and a repetition of parts of the question. By and large the students in the study who had the greatest problems with language were those from disrupted homes rather than those exposed to a second language in their homes.

Another finding resulting from the study of students' backgrounds was based on whether a student was in contact with a large amount of adult language at home. An only child or a child with older siblings will likely be in contact with much more adult speech than a child with younger brothers or sisters. Parents have less time to spend with a child in elementary school if there are younger children to take care of than if there are only older children. In addition, the student's attention may itself be directed towards a younger brother or sister. It was found that without younger siblings, students more frequently used complex grammatical

structures in the teacher-dialogues than they did in the dialogues. Other students did not show the same contrast in usage. Moreover, the students who were exposed to more mature language at home more frequently used complex grammatical structures in the teacher-dialogues than other students. In the dialogues, however, those who were not exposed to much mature language at home displayed about the same control over functional aspects of language as students exposed to more mature language.

Situation

Two findings related to different situations have already been discussed. In the section on the effect of a student's background, it was stated that exposure to mature language seemed to be related to the more frequent use of complex sentence structures. The analysis of questions revealed that some students (grade 4) tended to answer "what" questions with a one word response in dialogues but at greater length in the teacher-dialogues.

Students very rarely asked questions in the teacher-dialogue, although they usually asked questions in the dialogues. Following a similar pattern, students change the topic and introduce new information into the conversation infrequently in teacher-dialogues unless it is in direct response to the teacher's questioning. However, in the dialogue one student may assume the teacher's role of directing the conversation and controlling the topic.

In examining the grammatical structures used in the three situations (monologue, dialogue, and teacher-dialogue) it was found that the teacher-dialogue tended to resemble the monologue. The teacher's influence in controlling the conversation and separating the speakers in a teacher-dialogue seemed to result in speeches by each of the students which had

the characteristics of short monologues. With the teacher present each student would feel that he would not be interrupted as quickly or as often as in a conversation with only a classmate present. There were more additioned sentence elements in the monologues than in the teacher-dialogues (of course, because the student had time to speak without interruptions), and more in the teacher-dialogues than in dialogues. In four of the seven grade levels (namely, 1-2, 3, 4, 2-6) rank-shifting showed the same pattern of decreasing frequency through monologues, teacher-dialogues, to dialogues. The dialogues were usually rapid interchanges in which there was little opportunity to use long sentences with additioned elements or rank-shifted (subordinate) clauses. These results just point out that different speaking situations place different demands on the language user, not that one situation promotes "better" language than another situation does.

Structure

Results relating to the analysis of complex sentence structures have been reported in the previous sections where the structural findings seemed to bear on the other analyses. For example, the use of minus element additioning (see Appendix C) and rank-shifting was highest in the monologue situation and lowest in the dialogue situation. In this particular case, volubility is an important factor in determining the frequency of use of the structures. However, situation seemed to be the cause of both the changes in volubility and the different frequencies in use of the complex grammatical structures.

Frequent hesitations (the use of "um", "ah", repetitions and re-starting sentences or words) were found with a greater use of rank-shifting and additioned sentence elements. Perhaps the attempt to form more

complex sentence structure presents difficulties to students. The hesitations may therefore function to give the students time to work out the structures, partly in their minds and partly by incomplete attempts. It must be noted, however, that the more complex grammatical structures are used most frequently when the student has a chance to speak without competition from another speaker. The increased volubility in these situations explains some of the hesitation found with the complex grammatical structures, but the increased volubility is not solely responsible.

Anaphora (defined in Chapter II and described in Appendix C) is the device of using speech to refer back to language which has been previously used in the conversation or monologue. Pronominal anaphora was the most frequent type of anaphora that was found. That is, students frequently use a pronoun to replace a common or proper substantive in a clause or sentence following the first use of the substantive. Anaphora was related to additioned sentence elements in almost all the grade levels (grade 1 and grade 4 were exceptions). It may be that students find it easier to use anaphora by replacing a substantive with a pronoun when two or more independent clauses are additioned to form compound sentences than when two independent clauses are left separate as individual simple sentences.

The use of tentativity (expressions of cause, condition, supposition, and hypothesis) often followed the use of rank-shifting and additioned sentence elements. Tentativity did not seem to stand as an independent factor of language but was associated, like the other indicators of structural complexity, with increased volubility.

IV Conclusions

The sample of spoken language used for this investigation necessarily prescribes both the kind of analyses that could be carried out and the type of conclusions that could be drawn. Our findings cannot presume to represent the language of elementary school children in general. As the selection of schools was largely determined according to the interest expressed by teachers and principals, socio-economic status and other variables could not be controlled. Further, since the investigation was carried out over a six-month period, no developmental aspects of the speech of individual students could be observed.

The investigators concerned themselves with the influences on the language of each child. By taking individual students and gathering information on their family background and by comparing their performance with students of similar or contrasting backgrounds, some of the influences on language were revealed. In this way a number of our findings could be used diagnostically. It can be suggested that students with a particular background may be subject to a particular language difficulty. In applying the results one must be careful to treat the findings as indications or signals to the teacher rather than as invariable patterns of language behaviour. The student's teacher, who is with the student every day, can best judge the difficulties for any particular student. A student exposed to a second language in the home for example, may tentatively be thought of as more comfortable when talking with his peers than with a teacher. On the other hand, students frequently exposed to mature language may speak more effectively when a teacher is present. Students from broken homes may be expected to have serious language difficulties. In this way our findings may serve as a guide in determining some of the reasons for a student's language problem or proficiency. Assistance with language difficulties, however, must be based on the individual student's specific

problems, personality, and background.

We were concerned with the multiplicity of influences on a student's language which result in each student speaking a different type of language in each of the three different situations. In linguistics, these languages within a language are known as "varieties" of the language in question (see Gregory, 1967). These varieties may correspond to a greater or lesser degree to what any given person believes is the "best", or the "correct", or the "right" language that everyone should speak. However, each variety is shaped by background influences and is also serving some function or purpose in the situation in which the variety is used. As functions and situations change, language adapts itself to serve different ends. Consequently, each student speaks not one variety of English, but rather several varieties, each for a different purpose and a different situation. By having students talk in three different situations, the investigation was able to point out certain differences in speech which reflect the different varieties of English which were used. In different situations a student may use a variety of English with many questions or one with very few, a variety with complex grammatical structures or fairly simple ones, a variety with a high degree of formality or an informal one.

No single variety is better or worse in absolute terms. Rather, the effectiveness of each variety in a given situation is what determines whether a student is using language well. The student who can be said to be a good speaker is not the student who closely approximates what is considered to be "correct" English, but rather the student who adjusts his language to the situation in which he finds himself. He must recognize when to use complex structures and when not to, when to question and when to be silent, constantly shifting the interrelated structures and functions of language to produce the variety demanded by a particular situation.

This study has described some of the varieties of English that each student and each teacher bring to school. Both must adapt to many situations and learn to change their language accordingly. Awareness of the differentiation of varieties within a language such as English and an understanding of how to encourage students and teachers to use varieties appropriate to the occasion are important pedagogical concerns. It would seem practicable for teachers to tape children with different backgrounds talking in different situations and then to play the recordings back to the class. The teacher could then point out the differences in language and ask how the students could make the variety of language that was used more appropriate to the situation. The situations need not be restricted to monologue or dialogue settings as in this study, but rather many other situations could be prepared: telling stories, explaining projects, performing a play, giving announcements, imitating a hockey broadcaster.

The research project had as its goals both the description of students' language and the encouragement of applications of what was learnt. It is anticipated that the teachers involved with the project will continue to explore the uses of language in the classroom and gain from their experience. On some questions raised by the research, further investigation is indicated. In addition, individual teachers must consider the findings and their relevancy for each class and for each student. Through further research and active development of the applications of the findings, both students and teachers will improve their understanding of language.

References

Note: Only works referred to directly in this report have been included below. For a classified and annotated bibliography on children's language and research into children's language see "Approaches to the Study of Students' Language" p. 78-84. . A further list of references is given on pages 143-145 of that research report.

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Appendix A - Sample Analysis

The following sample transcripts are included to exemplify parts of our method of analysing the data which was gathered and also to exemplify the different varieties of language which were used in different situations and by different people. The transcripts all include student M. She is in grade 1 and is 6 years, 7 months old. The teacher in the teacher-dialogue is M.'s regular classroom teacher.

Because the structural analysis focused mainly on clause structure, it was not necessary in this study to make detailed phonetic transcriptions from the tapes. Conventional spelling was used although some attempt was made to reproduce words as the students pronounced them: e.g., "'cause" for "because", "wanna" for "want to", "d'ya" for "do you". Very little use was made of standard punctuation. Proper nouns were capitalized and a question mark was used when there was a definite questioning intonation pattern in the speech. Pauses were marked with one, two, or three periods (., .., ...) depending on their relative length. Other punctuation such as commas, semi-colons, colons, and periods is generally inapplicable to oral language where pausing, intonation, stress, and pitch rather than little dots and capitals mark out clauses or sentences. When the speech of two or three speakers overlapped in the dialogues, slashed diagonals (///) covered the overlapping sections. When there was whispering, laughing, singing, and screaming, or when the speaking could not be understood, such annotations were enclosed in parentheses: e.g., (whispering) (indistinguishable).

Monologue

I'm going to International Night .. with my mom but maybe I might go and maybe I'll not be I don't know if my mom can come . and .. I really like to go to International Night and I haven't seen it yet but I used to go but I .. quit now so I don't think I'm gonna go anymore . join anything because I don't think it's very good because I take other lessons and I can't go every n' night so I qu' I didn't go anymore n' I like to go and see it .. maybe I might go . but I might not because I don't know if I can go and I wouldn't I really would like to .. today in school we're learning about sentences we have to write n' things like that . n' we have to do we have to make all kinds we have to put fix the sentences that our teacher does n' we have to finish our work and tonight we have to stay in and today we hadda we hadda go up and down the stairs n' sit back down in our classroom and at recess I played with the kids n' I .. I was walking around and ... and when I go home I I might go downstairs and I might do something I might do put a puzzle together .. and I like . I like to practise my what I have to do n' I like to write n' print . print my name . things like that .. I'd really like to do something like and in school I like school very much and I'd like to .. I like doing work in school and I like .. rubbing things out and I like doing them over again n' I like getting spare work from the box when I have time to do it but I don't have very much time 'cause we always have to do work ... maybe sometimes I get to do some work I don't know maybe I'd maybe sometimes maybe when I finish my work I'm gonna do some extra work . 'cause it's fun to do once you've did sometimes you get things wrong and sometimes you don't this boy here . this boy in grade two he got a grade one thing and a grade one paper wrong .. n' n' I like my teacher too ... um n' n' then sometimes when I go home I find my

little doggie looking out the window for me and then when I come in she's at the door waiting for me and at lunchtime she's at the door waiting for me and sometimes my dad comes n' gets me and she's at . looking out the window for me .. n' I like .. going to school every morning then I come and have my lunch and I li' I like doing things like that walking . having a nice time .. doing things .. I like .. I like school n' I like my teacher very very very much . n' I like reading n' I like doing 'rithmetic n' math I like . I like doing art what we have when we decorate n' we're doing a board called spring n' there's all butterflies n' birds n' grass and flowers n' rabbits n' like like that n' we got some ladybugs and little flowers with flowerpots in them n' we learn about time in school . an' we . we learn how to print n' s' all the grade twos suh sometimes they get uh they get to write ... n' they we print sometimes but not very much .. n' I and uh then when we read out stories sometimes we have to do . stories on out of our own words n' sometimes we have to do . n' sometimes we have to . put our pencil n' if there's a rubber missing we have have to check our desks n' look for it until we find it we can't go until we find it . n' then pencils are missing n' nobody'll tell the truth .. like out Valentines kids all made things to decorate n' then Ms. ----- my teacher Ms. ----- sh' she put them up and she took them down ..... my name is Marilyn

The monologue used as a sample was recorded by student M. It is quite long for a student in grade one (6 years, 7 months old). In the structures used, the monologue is unusually complex. Nineteen expressions of tentativity and twenty-five rank-shifted clauses were used in the monologue - both very high for a student of six. The 57 additioned sentence elements (E+) indicate that the student was continuing the monologue by closely following one sentence element by another in a chain pattern. This characteristic was frequently found in the monologues.

The focus of the monologue changes only four or five times. The student sustains each topic longer than usual in a grade one monologue. There are few hesitations in the monologue, compared to other students and considering the desperation and even tears which other six-year-olds had. M.'s monologue and dialogue show that although she is shy and her language has perhaps restricted interpersonal funotions, she can use some complex structural aspects of language far more frequently than other students of the same age.

Dialogue

S: hi little girl what's your name?

M: my name's Marilyn

S: you wanna go to the school with me?

M: okay

S: okay let's go .. do you like questions to school for working in school?

M: yes

S: what kind of work do you do?

M: we do things like papers and we have to circle words but I don't like things like that

S: do you do any arithmetic?

M: yes we do lots

S: I do work too like that do you read books?

M: yes we do

S: you have fun at recess don't you?

M: yes

S: do you like recess?

M: yes I do

S: what do you play at recess?

M: oh I play with the kids

S: what's the kids's names?

M: oh sometimes I play with Sonya and sometimes I play with Silvia .. you know?

S: yeah and do you ever play with Joanne?

M: yes sometimes

S: and when you go in the school do you like to go back to work?

M: yes I do

S. do you have fun?

M: yes

S: sometimes do you go down to the library n' read books?

M: yes

S: do you like the library?

M: yes I do

S: did you like when you sell donuts for the books for the school?

M: yes

S: did you enjoy it very much?

M: yes I did

S: are you gonna are you gonna go to school tomorrow too?

M: yes I go to school every day unless I'm sick

S: do you have fun in school?

M: yes I do

S: do you go to Sunday school?

M: yes I do

S: (whispering) (indistinguishable) me a question

M: do you read books .. do you do you read books on school?

S: ~~yes~~

M: ~~what~~ type of books do you read?

S: um think books like Out and Away and I'll be on Flying Free soon

M: and really thin books some some of the kids in our class read thick books you know

S: yeah .. do you know um .. Maureen?

M: oh yes she she's the new girl in our clase you know

S: yeah and she gets sometimes work lots of work wrong a little

M: ~~yeah~~

S: ~~she~~ didn't do good on the spelling test?

M: yeah she didn't do very good

S: 'cause you know she's just [illegible]

M: [illegible] she's just new .. she can't do things very well

S: are you going to International Night today?

M: ah I don't know my mom might .. you can't come on your own she won't let me go by myself [illegible]

S: [illegible] 'cause you know my mom's going and she wants me to see what they're going to do

M: mm hm .. yeah

S: did you really wanna go to International Night?

M: yeah I really do want to go .. but I [illegible]

S: [illegible] in a thing uh?

M: well I quit early because I you know so it's too li' little too much because I have to take piano and I'd have to go there and you know it's a little bit too much for me because I have to practise when I get home

S: yeah I couldn't go either because you know have to go so many places after school

M: yeah and sometimes we have to go out like shopping after my supper n' then we have sometimes we have

M: my name is Marilyn

S: my name is Sonya

This dialogue is a quite typical dialogue in which one student assumes the questioning or teacher's role while the other responds frequently with denials, affirmations, and repetitions of elements of the questions. The student who assumed the questioning role in this dialogue is one of the best all-round students in her class. The other student is extremely shy and reticent. As the dialogue proceeded, student S. gave the questioning role to student M. who then asked an information-seeking question (the only such question she asked). S. then resumed questioning and asked 25 questions in all. As the dialogue proceeded, M. appeared to be gaining confidence and, in spite of her early short responses, she speaks slightly more than her partner when the dialogue is considered as a whole: 270 words by M. compared to 265 words spoken by S. The length of responses is significant. Though M. has generally shorter passages, two long segments increase greatly the number of words she spoke.

Number of words per speech	Number of speeches of given lengths	
	M.	S.
1	8	1
2-7	13	16
8-15	6	13
16-25	2	2
25+	2	0

Though M. was not the leader interpersonally, perhaps because of her shyness, her language structures throughout the dialogue were slightly more complex than her partner's. She employed 6 rank-shifted clauses compared to 3 by S. and 8 E+ elements compared to 4 by S. Both students used 5 expressions of tentativity. What is significant is that complex structures

are not necessarily related to the use of the interpersonal function of leader in language. M. who is alone at home with her parents was functionally less able to cope with this situation than her partner. That S. has one older and one younger sister may indicate that she has more opportunity to develop the functions she would need in talking to a peer than M. On the other hand, M. has had frequent contact with adults (she has one older brother and no younger siblings) and, as with many such cases, she uses more complex structures. S., with a second language in her home, functionally dominates the dialogue. This is usual in dialogues between students exposed to a second language and those who are exposed only to English.

Teacher-Dialogue

T: all right John did you go to International Night last night?

J: um yeah

T: can you tell me what happened there?

J: well um we saw uh films we saw films all over from the world and um this boy he said that uh wa' are you ready to have a trip around the world?

T: what was your very favorite part?

J: I like um when they danced and uh they sung

T: did you go Marilyn?

M: yes I did

T: can you tell me what you liked the best?

M: I liked the folk dancers when they were dancing

T: would you like to be a folk dancer do you think?

M: yes

T: why?

M: um .. 'cause it's nice to dance

T: what else did you see last night?

J: uh we saw um slides of uh .. uh .. all over the world and these two girls they uh made up a play and then they after that they um they uh they played of the violin

T: did you see the play Marilyn?

M: yes I did

T: can you tell me about it?

M: well these girls they were playing the parts in the in this play and they were I didn't see very much of it though

T: did your mother come with you and your father?

M: yes my mother came with me

T: and what did they think about it?

M: my mother liked it too mother liked it

T: what was your favourite country?

J: .... um I liked um Spain the most

T: what did they have about Spain?

J: well um .. th' they had a song during they had a song during the um the s' uh the slides like they sung in ah in Spain language

T: you mean Spanish?

J: yeah and I liked it and um I like that was the best movie I like

T: and you don't have a favorite or do you Marilyn?

M: no I don't really have

T: you don't seem to want to talk too much about it I'd like to hear more about International Night I didn't get to go

M: I don't know very much about it either because I didn't see very much because all the people were crowded ... and I didn't really I couldn't see very much

T: you were sitting too far away?

M: I wasn't sitting I was standing

T: well did you see anybody that you knew in International Night?

M: no

T: nobody? .. you didn't know what anybody was doing?

M: yeah I knew what some people were doing

T: well maybe you could tell me about it

M: some of the folk dancers were doing dances n' people were singing n' so one of the kids that was singing the choir they sung about Canada n' all over the country n' they sung all different kinds of songs n' the folk da' folk dancers done all kinds of different dances n' things like that

T: what were some of the things that were out in the hall last night John?

J: um there was this big stand with uh all chi' kind a Chine' uh China things and uh there was chopsticks that pe' that the Chinese ate with and uh all different kinds of suits one suit that wa' that was different from our suits and .. there was um uh bowls that that weren't the kind that uh we have they all had different uh decorations on 'm

T: did you see any other displays that you liked Marilyn?

M: yes there was some pretty flowers and there was some flags... out in hall and then there was there was these tables with all things put on them that were made

T: what kinds of things?

M: well there was some faces and some some people made heads and some people got a branch and covered it with pretty things some people used wires and paper .. um n' some people just used the plaster and the branch and there was this great big stone with a face put on it

T: did you like that?

M: yes

M: my name is Marilyn

J: my name is John

In this teacher-dialogue the formality resulting from the taping situation and the teacher's presence are marked. Both students were a little reticent to speak. Student M. exhibited this shyness in her dialogue but for student J. the change of tone from his informal dialogue was clearly evident. As in most teacher-dialogues, the teacher assumed the questioning role and controlled the topic. In this dialogue the teacher seemed to control who spoke and for how long. One suspects that in a dialogue without a teacher, student J. would overpower M. The teacher's presence restrained J. and M. became clearly the more voluble: 261 words by M. compared to 172 by J., with the teacher having spoken 202 words. M. spoke 17 times and J. only 8 times. The teacher asked 24 information-seeking questions.

Number of words per speech	Number of speeches of given length		
	M.	J.	Teacher
1	3	0	1
2-7	6	2	13
8-15	3	2	10
16-25	1	1	0
25+	4	3	1

Each student answered a similar allotment of questions. M. responded twice as often since her first answers were frequently little more than a "yes" or "no" with a repetition of parts of the question. The teacher then questioned her for a fuller answer. In general, J. responded and added new information when asked a question. As in her dialogue, M. displays more structural complexity than her partner: in tentativity, 6 expressions compared to 5 expressions; in E+ elements, 3 compared to none by her partner; and in rank-shifting, 13 compared to 7. The

difference in the number of structures used was largely a result of student M.'s greater volubility. Student M.'s language is more complex in the teacher-dialogue than in her dialogue as is common with children who have prolonged contact with adults (she has a married brother and no other siblings). Her shyness seemed to be reduced by the teacher. Relative to her grade and age level she was quite adept at using language.

Appendix B - Case Studies

To clarify how some of the many factors affecting language interact in individuals, the following students have been selected from the sample and examined individually. A pair of brothers and a pair of sisters are included as comparisons of the effect of a similar upbringing.

Peter	Andrew
age: 5 years, 1 month	age: 7 years, 4 months
grade: junior kindergarten	grade: 2

Like most kindergarten students, Peter did not speak very much in the monologue situation. However, he interacted well with his partner in the dialogue and especially well in the teacher-dialogue. His use of expressions of tentativity was very good, as good as his brother who is two years older. That Peter used many compound sentences and was quite voluble reflects a characteristic of children with foreign language backgrounds (Dutch in this case); these students were usually more voluble in their dialogues than students with only an English language background. Peter's volubility would seem to be related to his cheerful and sociable character.

Andrew, Peter's brother, seemed quite self-conscious in the dialogue and allowed his partner to control most of the conversation. He rebelled against his partner on some occasions by refusing to take up a role which is implicitly offered to him and by refusing to answer some questions. Andrew seemed alert to objects in the room and occasionally mentioned them as devices to change the topic. As with Peter, Andrew spoke best in the teacher-dialogue situation, but poorly in the monologue. At one point in the monologue, apparently having nothing to say, Andrew broke into song with a rendition of "On Top of Old Smokey" and snatches of other songs.

Both Andrew and Peter used complex structures with a frequency which is high for their ages. This fact may reflect the adult language spoken at home and perhaps the language of their father who is a minister.

John
age: 6 years, 5 months
grade: 1

John's teacher reported that he is a good student, responsible, and is a leader in most classroom situations. He is popular and goes out of his way to make friends with the "important" people in the class. As a grade 1 student in a combined class of grades 1 and 2 it could be expected that John would have to struggle to compete with older children to stay in the position of leader. John has three older brothers and sisters aged eight to seventeen years. At home, as well as at school, he is influenced by older speakers.

One clear characteristic of John's speech was its great number of hesitations in all situations. Although he was very eager to speak and succeeded in controlling the conversation in the dialogue, John constantly used "uh" and "um", and repeated words and grammatical patterns. The hypothesis that the competition of more advanced speakers may in some way be contributing to John's hesitations needs further investigation.

Clayton
age: 8 years, 6 months
grade: 3

Clayton's language was very poor in the structures used compared to other speakers of his age. From the recordings, Clayton seemed to be reluctant to speak in all the different situations. In his monologue, much like a student in kindergarten or grade 1, he spoke very little and sighed frequently. Clayton hardly spoke at all in his dialogue despite the attempts of his partner to encourage him. His responses to questions

usually were one word answers or just repetitions of the language and structure of the question; e.g., partner: "did you used to live in Detroit?", Clayton: "(pause) ... live in Detroit". In all the speech of Clayton which was recorded there was very little use of expressions of tentativity and few complexities in the sentence structure. However, Clayton spoke more in the teacher-dialogue than in the dialogue with only his partner. The structures Clayton used in the teacher-dialogue were more complex and are used more frequently than in the dialogue.

It is difficult not to relate Clayton's poor use of language to his disruptive home life, his poor record at school, and a physical handicap. He has needed tranquillizers and finds it difficult to settle down and concentrate. One side of his body is more developed than the other side. One of the findings of our investigation of the students from broken homes is that such students often responded to conversation better in the teacher-dialogue situation than they did in the dialogue with a partner of their own age. They speak more in the teacher-dialogue than they do in the dialogue and it may be that such a situation which is usually well controlled by the teacher provides the stability of roles they require to speak at length and to respond to others.

Sylvana	Julia
age: 7 years, 7 months	age: 10 years, 4 months
grade: 2	grade: 2

Unlike most of the students who were studied, Julia was shy in the teacher-dialogue and spoke much less in it than she did in the dialogue situation. In the monologue she used a great number of compound sentences (grammatically an E_a^+ structure) but with a constant "and then" pattern; e.g., "so then we went back in and ... so then we played inside th'n we went back to sleep again ... and then ... and then we were trying to go

round inside on ... ". Julia's language was structurally repetitive, with little variety, but with frequent hesitations and restarts.

Although she is two years younger than her sister, Sylvana used a more developed language. She used fewer very long compound sentences than Julia, hesitated less frequently and used many more subordinate clauses (rank-shifting in the scale and category grammar).

Appendix C - Frameworks of Analysis

Functional Basis of Analysis

One effective way to examine language is in terms of the functions it serves. Linguists of the Prague school and more recently Halliday (1970) have adopted this perspective on language. Three major functions of language have been advanced: (1) an ideational function concerned with how we view and order reality, (2) an interpersonal function dealing with the operation of language among people, and (3) a textual component considering the coherence and organization of passages of speech. Halliday states that when we speak, we select various options from sets of choices in each of the three functional components. Our choices are then realised and made concrete through the grammar of the language and become actual speech. In our study we wished to examine language in various situations. Unfortunately every situation is such a complex of interrelating variables that Halliday's functional divisions cannot encompass all of them explicitly. We chose, however, to retain the functional orientation by looking at language in terms of the uses it serves, while at the same time broadening two of Halliday's functional components to suit our purposes of describing students' language. We were concerned less with the realisation of the three functional components in a grammar than with the play of language in the particular situations themselves.

Each of our taping situations was analysed in terms of a textual function and an interpersonal function. These functions and our analysis differ greatly from Halliday's functions with the same names. Under the rubric of textual function were examined those aspects of the students' speech which indicate his ability to co-ordinate passages of language

longer than a single clause. Their presentation of new information, smooth change of topic, and the coherence they were able to achieve were considered. Anaphora, a type of referring back to language which has just been used, is an important factor of cohesion. Pronominal anaphora was frequently found; for example, "I saw Susan's brother yesterday he was downtown shopping". The pronoun "he" refers back to "Susan's brother" in the previous clause and creates one cohesive factor between the two utterances. Hesitation markers such as "um"'s, "ah"'s, restarts and repetitions are also relevant to cohesion.

Our second approach was through the interpersonal functioning of the students' language: the students' ability to use language in an interchange with other students and a teacher. We looked for the awareness of the participants involved in the discussion as marked by the use of interpersonal anaphora, the avoiding of overlapping, and various forms of address. Interpersonal anaphora is the referring back to something spoken in a passage by another speaker. For example: "do you play hockey" "yes I do that", where "do" in the second utterance refers back to "play" in the first and similarly "that" to "hockey". Here the anaphora seems to be a function of language between two speakers rather than a realisation of a textual function co-ordinating a passage spoken only by one speaker. Several students assumed the roles or masks of a teacher or a mother bird for example, and such dramatics were noted. Insistence on being heard, insisting on winning arguments, and volubility were other factors in the interpersonal functional analysis. Volubility was measured in terms of the number of words a student spoke and the number of times he spoke in a teacher-dialogue situation. Responding was focused on and students were studied in terms of their facility in responding and adding new information. Questioning

was initially examined through three question types and further discussed under more delicate headings. Initially "egocentric" was used to describe questions asked by a student who wished in reality to answer them himself and who did so after a token response from his partner. Other question types in the conversations were information-seeking questions and exclamation questions like "wow did you really see that game last night". Whispering, prompting, giggling, singing, and moving the microphone were taken into account when they were a significant part of the conversation. Our categories for analysing the functions of language differ from Halliday's (see Halliday, 1970) but retain the basic approach of examining the different purposes that language can serve and of examining the total situation in which language is used.

Background

The information about the background of each student was obtained on a confidential basis from school records. The students' current teachers co-operated by completing a questionnaire about grades, speaking ability, character, special problems and any other factors that they thought would be important. The two questionnaires are reproduced on the following pages. In the analysis, particular attention was given to the number and ages of siblings, the language(s) that the student has been and is exposed to, and the difficulties in the home, particularly broken homes. When the information was available, the frequency of moves which the family has made is taken into consideration.

STUDENT BACKGROUND

NAME _____

AGE _____

DATE AND PLACE OF BIRTH _____

ADDRESS, TYPE OF DWELLING, TRANSIENCE _____

_____

NAMES AND AGES OF FAMILY

PARENTS 1. _____

2. _____

SIBLINGS 1. _____

2. _____

3. _____

_____

_____

_____

NAMES AND AGES OF CO-HABITORS _____

LANGUAGES SPOKEN BY 1. PARENTS _____

2. BROTHERS AND SISTERS _____

OTHERS _____

PARENTS' OCCUPATIONS 1. FATHER _____

2. MOTHER _____

SPECIAL PROBLEMS _____

_____

_____

_____

_____

MARKS

TEACHER'S COMMENTS

SPEAKING ABILITY

CHARACTER

PROBLEMS

OTHER COMMENTS

Situation

The students chosen as subjects for this study were placed in three different taping situations. It took one or two days to tape the six subjects from each class and their partners. The students were left alone in a small room when they did the monologue. For the dialogue the selected student was to choose a partner from his class and the students were left alone in a room. For the teacher-dialogue, the teacher spoke with two students from her class at a time. The original six students were randomly paired for this purpose. The subjects were seated on small chairs near a Uher 4000 tape-recorder and microphone set to record at seven and one-half i.p.s. The investigators turned on the tape-recorder and left the room for five minutes. The presence of the tape-recorder was evident and students were asked not to touch the microphone nor to talk directly into it, but to talk normally. Students were asked to avoid singing and giggling and to speak on topics of their own choosing. If students seemed shy or reticent topics were suggested. Each student was assured that they were not being tested or evaluated and that they should relax and just try to talk. In spite of the occasional sobbing and various attempted escapes, these situations worked well. There was little difficulty transcribing those units of tape on which the students spoke up and did not whisper or shout repeatedly.

Structure

In order to give a more comprehensive account of the grammatical structures than was possible in the body of the report, a summary of Gregory's scale and category grammar for English is given below. This summary was first prepared by G. A. Tilly for the earlier study done for

the Board of Education for the Borough of North York, "Approaches to the Study of Students' Language". The summary is taken almost verbatim from p. 10-19 with deletions made where necessary to fit the description of the present study.

As a detailed structural analysis of all the language which was gathered is far too time consuming, only a few selected grammatical structures were investigated. The summary of the grammar which follows focuses on these structures although additional information about the grammar must be given. The grammar that was used is a "scale" and "category" grammar. Unfortunately it is impossible to explain in a report such as this all the scales and categories for which this grammar is named. Nor can we describe all the terms used by scale and category grammarians in their language analyses. We can only briefly describe those concepts and terms which are directly relevant to our particular analysis. Three such concepts are the category unit, the rank-scale, and the scale of delicacy.

Five units for the description of English are postulated:

sentence

clause

group

word

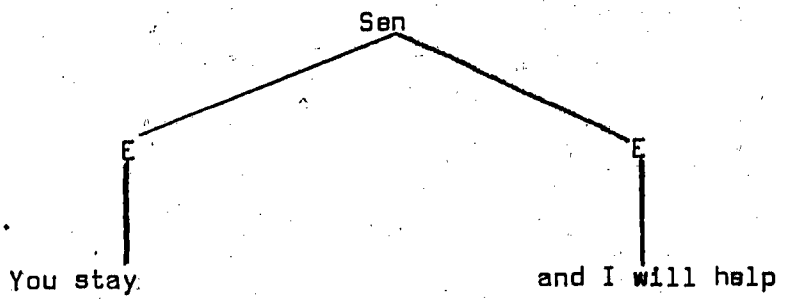
morpheme.

These units are arranged in this manner by the rank-scale, which ranks them from the most-inclusive (sentence) to the non-inclusive (morpheme). Each unit is defined in terms of the units directly above and below it on the rank-scale. A sentence consists of one or more clauses; a clause of one or more groups; a group of one or more words; a word of one or more morphemes.

The scale of delicacy is the scale of "depth of detail" of analysis. Using the model, we can describe the cry "Help!" as one sentence, one clause, one group, one word, and one morpheme. When we consider "Help!" as a sentence, we describe it as consisting of one sentence element (E) which is expounded by an independent clause:

Sen (sentence)
|
E (sentence element)
|
Help!

Similarly, we can analyse the sentence, "You stay and I will help." This sentence has two elements:

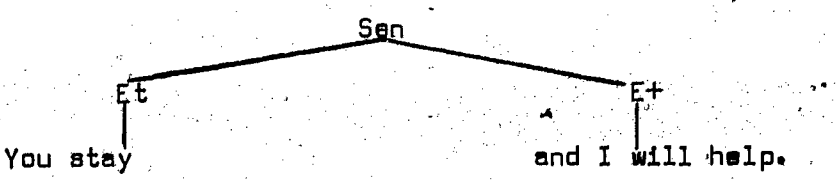


For a more detailed or delicate description of sentence elements, we wish to make distinctions between elements such as "you stay" and "and I will help". Using the scale and category terms, we wish to know more about the independent clause classes which expound these elements. Scale and category grammarians treat the former element as a typical sentence element (Et), and the latter as an additional sentence element (E+). The Et is expounded by a clause of the typical independent clause class; the E+ is expounded by a clause in the additional independent clause class. The two classes of clause are defined as follows:

typical independent clause: can be the sole exponent of a sentence

additional independent clause: presupposes the existence of a previous clause or a substitutory non-linguistic event (Gregory, 1966: II, II, p. 5).

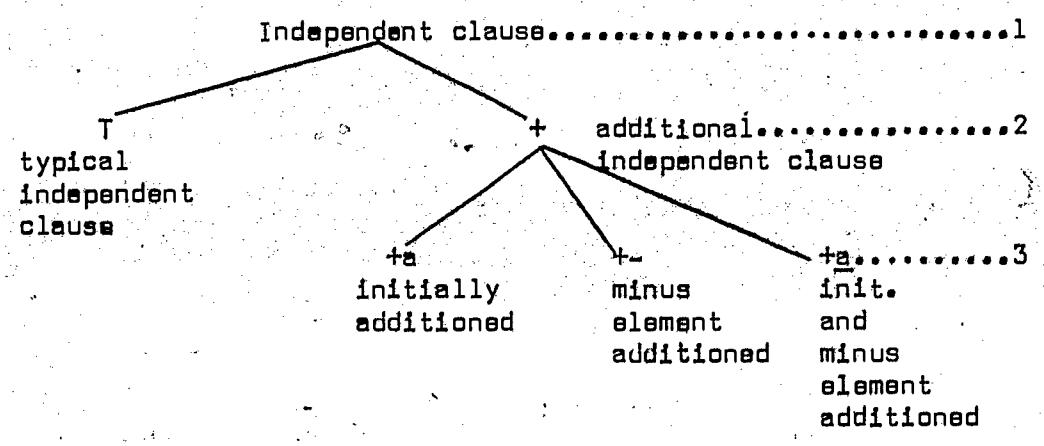
Thus our example sentence can be analysed with greater delicacy:



If we wish to be even more delicate in our description of independent clauses (i.e. those clauses which operate directly in sentence structure), we can describe the ways in which a clause can be additioned:

1. initially additioned additional independent clause.
   "You stay and I will help." The underlined clause is initially additioned by an additioning adjunct (and, but, so, either ... or, etc.)
2. minus element additioned additional independent clause.
   "You stay; I won't." The underlined clause is additioned by the fact that it is minus the predicator head element "stay". (cf. "You stay. I won't stay.") The minus element is understood from the previous clause.
3. initially and minus element additioned additional independent clause.
   "You can stay but I won't." The underlined clause is additioned by both methods 1 and 2.

Using a short-form method of notation adapted slightly from Gregory's notation, we can now summarize the independent clause classes in English through a diagram:



This diagram illustrates the concept of the scale of delicacy. Independent clause classes can be analysed to the degrees of delicacy labelled 2 or 3 according to the reasons for the study.

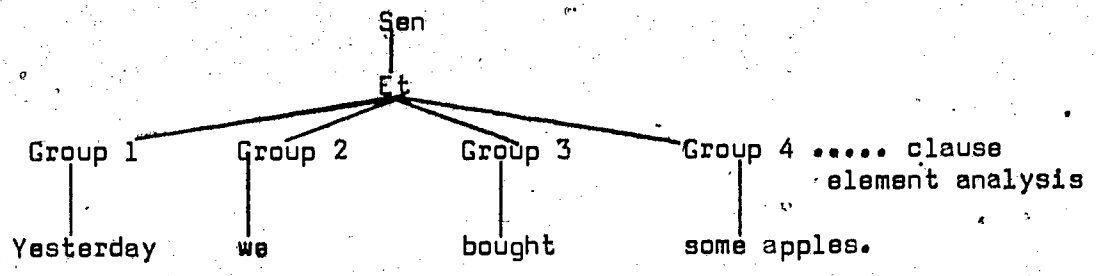
Apart from looking for patterns in a language sample once an analysis has been done, it is often useful to compare aspects of one's sample to the results of other surveys, or to consider the sample in the context of other generalized statements about language usage. The use of minus element additioned clauses (+- or +a) can be considered in the latter context.

Researchers have suggested the use of such clauses may indicate a degree of maturity of language usage. Such clauses allow the speaker to compress what he is saying by leaving out that which can be understood from a previous clause or non-verbal factor.

So far we have considered how independent clauses operate in sentence structure. As Loban has indicated (1963: 85-86), the study of the subordinate clause of traditional grammar is also useful. Such clauses are known as dependent clauses in scale and category grammar. In order to describe the scale and category explanation of dependent clauses, it is necessary to introduce a few more concepts and terms basic to the grammar.

We have said above that a sentence consists of one or more clauses, a clause of one or more groups, and so on. The following sentence, which

is expounded by a typical independent clause, conforms to this description. The independent clause consists of four groups. Three of these groups consist of a single word, the fourth group consists of two words:



These groups are expounding <u>clause elements</u> just as the typical independent clause is expounding a <u>sentence element</u>. The four groups expound the following clause elements:

Group 1: Adjunct (A)

Group 2: Subject (S)

Group 3: Predicator (P)

Group 4: Complement (C)

In addition to these elements, Gregory postulates a fifth clause element designated Z.

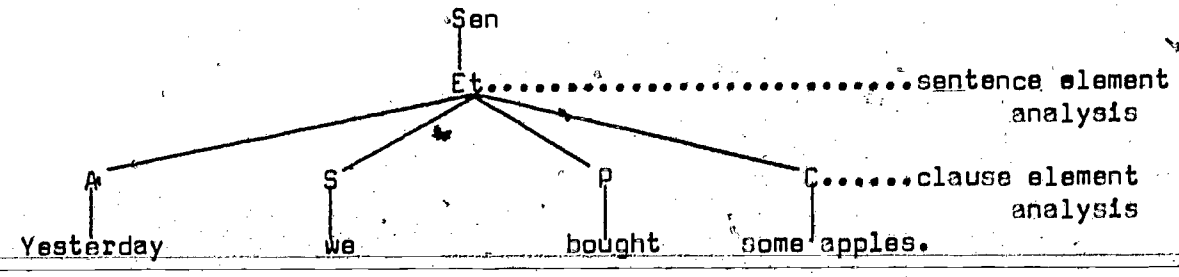
The clause elements Subject, Predicator, and Complement require no explanation here as they are terms used in traditional grammar. We need only say that the Complement element includes the subjective completion, direct object, and indirect object of traditional grammar. Distinctions between these functions are made when we use a greater delicacy of description.

The Z element (nominal group not in overt, i.e. S or C, relationship to Predicator) need not concern us here because of its infrequent occurrence.

The clause element Adjunct at first seems to be a catchall for those elements which clearly are not S, P, C, or Z. In a sense, this description is true. Yet further explanation would clarify the relatedness of the different Adjuncts. For now, we need only mention that among the functions

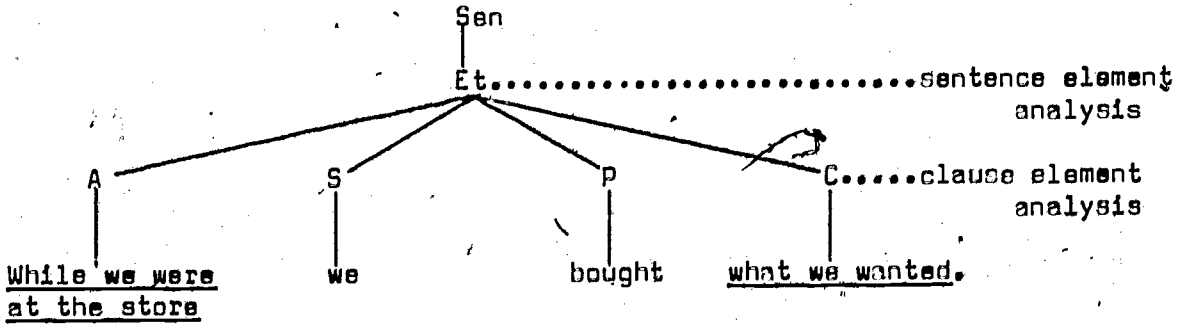
of adjuncts are those functions classed as adverbial and adjectival (non-defining adjectival units and sentence-adjectives only) in traditional grammar.

Thus the above example sentence can now be analysed:



Using these descriptive concepts, we can analyse two dependent clause classes:

While we were at the store, we bought what we wanted.



The clauses "while we were at the store" and "what we wanted" are not operating directly as sentence elements (E) as did the clauses that we described above as independent. Rather they act as the clause elements Adjunct and Complement respectively, as did the groups "yesterday" and "some apples" in the sentence, "Yesterday we bought some apples". Thus, recalling the rank-scale described earlier, we account for these clauses as rank-shifted or dependent. The two dependent clause classes exemplified by the clauses "while we were at the store" and "what we wanted" are labelled Adjunctival and Nominal dependent clauses respectively.

Adjunctival dependent clauses perform those adverbial and adjectival functions described above as among the functions of the clause element

Adjunct. Nominal dependent clauses operate in the same way as do nominal groups, i.e. as the clause elements Subject, Complement, and Z element.

Some nominal clauses also operate in a manner which cannot be explained through either sentence element or clause element analysis. In order to explain how these nominal dependent clauses and how Qualifier dependent clauses operate, we must briefly describe nominal group structure.

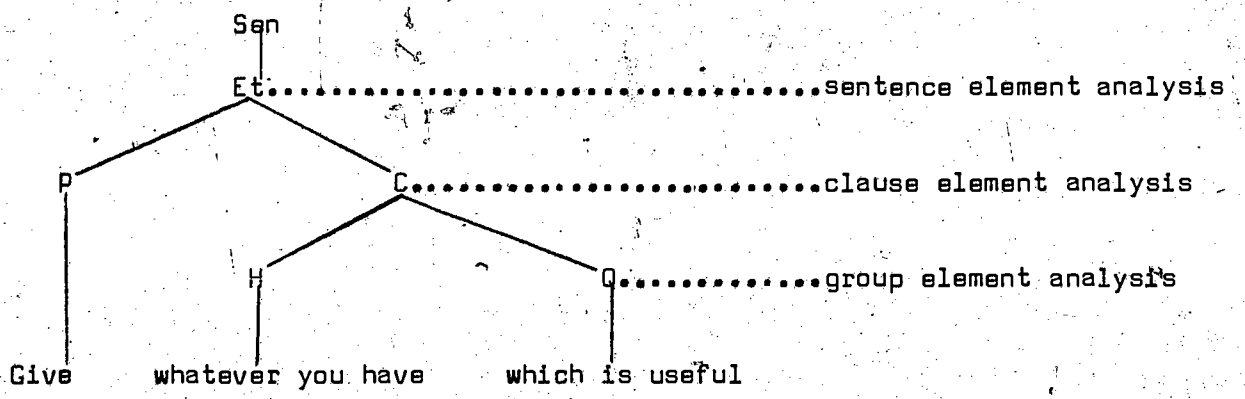
Scale and category grammar describes nominal group structure through the following terms:

M(Modifier): that which modifies and precedes the Head element ("the red ball on the table")

H(Head): the head of the group; bare subject in traditional grammar ("the red ball on the table")

Q(Qualifier): that which qualifies and follows the Head element ("the red ball on the table").

Using these terms, we can account for the rank-shifted clauses in the sentence "Give whatever you have which is useful".



"Whatever you have" is a nominal dependent clause operating as the Head of a nominal group. This Head element is qualified by the Qualifier dependent clause "which is useful".

Thus we have three classes of dependent or rank-shifted clause:

1. Nominal dependent clause: operates in clause structure as S, C, or Z element; e.g., "While we were at the store, we bought what we wanted". Some nominal dependent clauses can operate in group structure as the Head element in a nominal group; e.g., "Give whatever you have which is useful".
2. Adjunctival dependent clause: operates as the clause element Adjunct with adverbial and adjunctival (non-defining adjective and sentence adjective) roles; e.g., "While we were at the store, we bought what we wanted".
3. Qualifier dependent clause: operates in group structure as the qualifier of the Head of a nominal group; e.g., "Give whatever you have which is useful".

These three classes of dependent or rank-shifted clauses have counterparts, of course in traditional grammar:

> What were traditionally known as noun clauses can be seen as clauses operating at S(ubject) or C(omplement) in the structure of another clause; they will be classed as nominal dependent clauses. Those which were traditionally known as adverbial clauses and those which were known as non-defining relative clauses can be seen as operating as A(djuncts) ... in the structure of another clause; they will be classed respectively as adverbial adjunctival dependent clauses and adjectival adjunctival dependent clauses. What were traditionally known as defining relative clauses can be seen as operating as Q(ualifier) in the structure of a nominal group itself expounding an element of clause structure; such clauses will be classed as qualifier dependent clauses. (Gregory, 1966: II, II, p. 4)

For the purposes of this study tentativity was chosen as one measure of the complexity and level of development of language used by the students. Previous studies of the language of elementary school children by both Strickland (1962) and Loban (1961, 1963) have demonstrated that tentativity is a measure of language which can differentiate effective from ineffective users of language. As Loban (1963: 53) states: "Those subjects who proved to have the greatest power over language -- by every measure that could be applied, not just by the combined Teachers' Rating Scale and Vocabulary Test -- were the subjects who most frequently used language to express tentativeness." Tentativity is indicated by clauses of cause and condition and the presence of suppositions, hypotheses, and conjectures. The following examples are taken from the sample monologue (Appendix A):

condition - "I don't know if I can go"

cause - "I don't think it's very good because I take other lessons and I can't go every night"

supposition - "but maybe I might go and maybe I'll not be"

The language of each taping situation was analysed for tentativity and this formed along with rank-shifting a measure of complexity and development of language structure.